

Ankle Sprains

1. What is a sprained ankle

A sprained ankle occurs when the ligaments on either the inside or outside of the ankle are injured. The ligaments are torn when you roll over your ankle and the amount of tearing in the ligament determines the severity of the sprain.

2. How do you know how severe the sprain is?

The West Point Ankle Sprain Grading system gives a good overview of the severity of ankle sprain with the related signs and symptoms.

	Grade 1	Grade 2	Grade 3
Swelling	Localised	Localised	Generalised
Bruising	Non to slight	Moderate	Severe
Ability to weight bear & Walk	Full or Partial weight bearing without significant pain	Unable to walk without crutches only partial weight bearing	No weight bearing possible (significant pain)
Ligament Damage	Stretched Ligament	Partial Tear	Complete Tear
Recovery Time	7 – 14 Days	2 – 6 Weeks	4 – 26 Weeks

3. Signs/Symptoms

The above table details swelling, bruising and weight bearing as symptoms. Additional symptoms include localised tenderness, a warm joint

4. What can I do? (Home treatment)

Early management of ankle sprains is aimed at preventing swelling and maintaining ankle range of motion. To improve recovery initial management should follow the **PRICE** principle which is simple but very effective and will improve your initial recovery.

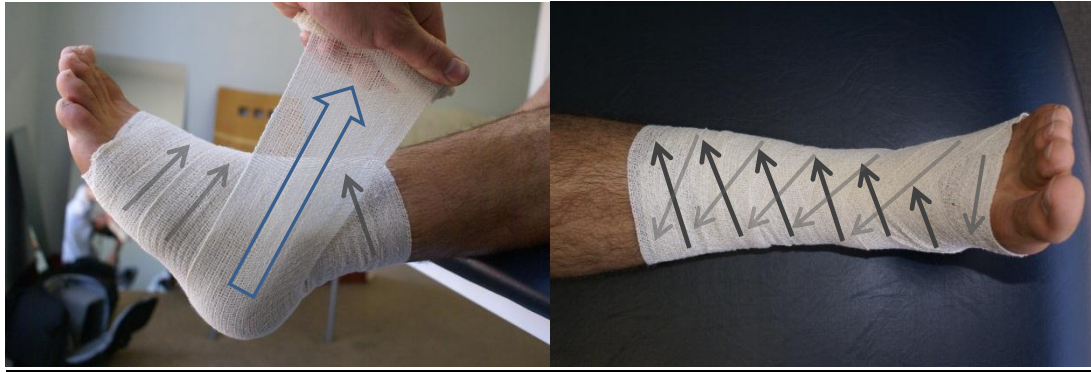
P (Protect): Avoid or stop the activity that is causing the injury. For most patients the use of crutches allows a offloading of the injured ankle and a normal walking pattern (allows for healing with normal movement patterns). Only enough weight should be placed on the ankle as can be tolerated. Prolonged immobilisation of the ankle is not recommended.

R (Rest): This will ensure that the severity of the injury does not progress and worsen. The ankle should be rested in a neutral position as stiffening tends to occur with time.

I (Ice): Crushed ice, ice blocks in a bag or gel pack are applied to the ankle over a cloth or kitchen towel (this will prevent cold burns). Immersion in iced water is also effective. The foot should be iced for 10 to 15 minutes every one to two hours, for 48 hours after injury.

C (Compression): Compression refers to the application of pressure to an injured area. Light compression is effective in decreasing excessive swelling at the site of the injury. Crepe bandages, neoprene guards and even cling wrap can work well. Bandaging should start at the base of the toes and extend up to mid-calf level. The compression will also help to immobilise the area and prevent further damage.

Figure of 8 Compression Strapping



When applying the figure of 8 strapping for compression. Pull up on the injured side of the ankle. Apply light tension only. If pins and needles develop or if the toes go blue the bandage is too tight and needs to be released.

E (Elevation): Raising the area will promote lymphatic drainage from the area and prevent excessive inflammation and swelling. Elevation 15cm to 20cm above the level of the heart is most effective.

Early pain free movement of the ankle help to maintain range of motion and to promote lymphatic drainage. These are simple movements which should be performed without pain. As time progresses the pain free range should increase.

5. When to seek medical treatment What treatment will I need

It is recommended that you seek medical attention or attend your nearest emergency room in the following situations:

- If you are unable to put any weight on the ankle
- Asymmetrical or skewed joint
- If you are unable to move the ankle
- Numbness in the injured ankle and foot
- If no improvement has occurred after 3 days
- Pain that is disproportionate to the injury

6. How long will I take to get better?

Recovery time after an ankle sprain depends on a number of factors:

- The severity or grade of sprain
- Treatment in the initial period following injury (application of the PRICE principle)
- Rehabilitation of ankle sprains focuses on:
 - Resolution of residual oedema / swelling
 - Restoration of full range of motion
 - Increasing ligament strength
 - muscle strengthening
 - Proprioception/ Balance training
 - Sports Specific training

Mild sprains (Grade 1) require less than 2 weeks to recover, moderate sprains (Grade 2) require 2 – 6 weeks, while severe sprains (Grade 3) require from 6 to 26 weeks to recover.

Complete tears (Grade 3) strains may require surgical repair if conservative treatment is unsuccessful, if ankle pain does not resolve or if instability of the joint persists.

7. How do I prevent it happening again?

Effective and early rehabilitation is effective at reducing the patient risk of re-injury and the development of chronic symptoms.

References

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